

WE CLAIM:

- 1 1. A method including:
 - 2 (a) determining at least one class, class hierarchy, classification scheme, category or category scheme;
 - 4 (b) assigning cases, persons, and/or things to said determined class, class hierarchy, classification scheme, category or category scheme; and
 - 7 (c) selecting and/or matching cases, persons, and/or things based at least in part on said class, class hierarchy, classification scheme, category or category scheme and/or said assignment, wherein at least one of said steps (a)-(c) includes the step of using at least some rights management information.
- 1 2. A method as in claim 1 wherein said using step includes using at least one control set.
- 1 3. A method as in claim 1 wherein said using step includes using at least some information for controlling use of digital information.
- 1 4. A method as in claim 1 wherein said using step includes using at least some information for controlling at least one transaction.
- 1 5. A method as in claim 1 wherein said using step includes using at least some information for controlling at least one event.

1 6. A method as in claim 1 wherein said using step includes
2 using at least some information for controlling at least one
3 consequence of digital information use.

1 7. A method as in claim 1 wherein said using step includes
2 using at least some information for controlling at least one
3 consequence of at least one event.

1 8. A method as in claim 1 wherein said using step includes
2 the step of using at least some information for controlling at least one
3 consequence of at least one transaction.

1 9. A method as in claim 1 wherein said using step includes
2 using at least some information outputted by a rights management
3 process.

1 10. A method as in claim 1 further including the step of
2 outputting at least some rights management information.

1 11. A method as in claim 1 wherein at least one of steps (a)-
2 (c) includes using at least one secure container.

1 12. A method as in claim 1 wherein at least one of steps (a)-
2 (c) includes using at least one protected processing environment.

1 13. A method as in claim 1 further including the step of
2 using at least one of the techniques set forth at pages 60-82 of this
3 specification.

1 14. A method as in claim 1 wherein said using step includes
2 using at least one or more rules and/or their consequences.

1 15. A method as in claim 1 wherein at least one of steps (a)
2 and (b) includes at least one of the following steps:

3 (a) using at least one statistical technique identifying at least
4 one cluster of cases sharing similar profiles and/or features;

5 (b) using numerical taxonomy;

6 (c) using at least one of cluster analysis, factor analysis,
7 components analysis, and other similar data reduction/classification
8 technique;

9 (d) using at least one pattern classification technique,
10 including components analysis and neural approaches;

11 (e) using at least one statistical technique that identifies at least
12 one underlying dimension of qualities, traits, features, and/or
13 characteristics, and assigning parameter data indicating the extent to
14 which a given case has, possesses, and/or may be characterized by the
15 underlying dimension, factor, class, and/or result in the definition of
16 at least one class and/or the assignment of at least one case to at least
17 one class;

18 (f) using at least one statistical method employing fuzzy logic,
19 and/or fuzzy measurement and/or whose assignment to at least one
20 class entails probabilities different from 1 or zero;

21 (g) using a Bayesian statistical classification techniques that
22 uses an estimate of prior probabilities in determining class definitions
23 and/or the assignment of at least one case to at least one class;

24 (h) using at least one statistical and/or graphical classification
25 and/or data reduction method that uses rotation of reference axes,
26 regardless of whether orthogonal or oblique rotations are used;
27 (i) using at least one statistical method for two and three way
28 multidimensional scaling; and
29 (j) using at least one knowledge based approach to
30 classification.

1 16. A system including:
2 an automatic class generator that generates at least one class,
3 class hierarchy, classification scheme, category or category scheme;
4 an automatic class assigner that assigns cases, persons and/or
5 things to said determined class, class hierarchy, classification scheme,
6 category or category scheme; and
7 at least one further component for automatically searching,
8 selecting and/or matching cases, persons, and/or things based at least
9 in part on said class, class hierarchy, classification scheme, category
10 or category scheme and/or said assignment,
11 wherein said system uses at least some rights management
12 information.

- 1 17. A system including:
2 first means for determining at least one class, class hierarchy,
3 classification scheme, category or category scheme;
4 second means for assigning cases, persons, and/or things to
5 said determined class, class hierarchy, classification scheme, category
6 or category scheme; and
7 third means for selecting and/or matching cases, persons,
8 and/or things based at least in part on said class, class hierarchy,
9 classification scheme, category or category scheme and/or said
10 assignment,
11 wherein at least one of said first, second and third means uses
12 at least some rights management information.
- 1 18. A Commerce Utility System providing a secure
2 execution space, the Commerce Utility System performing at least
3 one component based service function including at least one secure
4 component for execution within the secure execution space, the
5 Commerce Utility System including a communications facility
6 permitting communication of secure control information with at least
7 one electronic community participant,
8 wherein said component based service function uses at least
9 one class based at least in part on rights management information.
- 1 19. A Commerce Utility System as in claim 18 wherein the
2 component based service function assigns at least one member to at

3 least one class based at least in part on some rights management
4 information.

1 20. A Commerce Utility System as in claim 18 wherein the
2 component based service function matches persons and/or things
3 based at least in part on at least some rights management information.

1 21. A Commerce Utility System as in claim 18 wherein the
2 component based service function selects persons and/or things based
3 at least in part on at least some rights management information.

1 22. A Commerce Utility System as in claim 18 wherein the
2 component based service function narrowcasts information to
3 recipients based at least in part on at least some rights management
4 information.

1 23. A system or method including:
2 a computer network and
3 a control arrangement within the network that determines
4 and/or uses at least one of the following through use of rights
5 management information:
6 (a) class hierarchy,
7 (b) class structure,
8 (c) classification scheme,
9 (d) category, and
10 (e) category scheme.

1 24. A class-based system including at least one computer
2 that processes digital information, said system including at least one
3 element that uses at least some rights management information.

1 25. A method of operating a class-based system including at
2 least one computer that processes digital information, said method
3 including the step of using at least some rights management
4 information.

1 26. A system for assigning at least one thing or person to at
2 least one class including at least one computer that processes digital
3 information, said system including at least one element that uses at
4 least some rights management data in making said assignment.

1 27. A system for making and/or using at least one class-
2 based assignment including at least one computer that processes
3 digital information, said system including at least one element that
4 uses at least some rights management information.

1 28. A system for clearing at least one transaction including at
2 least one computer that processes digital information, said system
3 including at least one element that uses at least one class defined,
4 assigned, selected, and/or matched based at least in part on rights
5 management information.

1 29. A method for authorizing at least one computer and/or
2 computer user including the step of using at least one class defined,

3 assigned, selected, and/or matched based at least in part on rights
4 management information.

1 30. A method for authorizing at least one electronic
2 transaction including the step of using at least one class defined,
3 assigned, selected, and/or matched based at least in part on rights
4 management information.

1 31. A method for initiating and/or performing at least one at
2 least in part secure electronic transaction including the step of using
3 class related information defined, assigned, selected, and/or matched
4 based at least in part on rights management information.

1 32. An information processing method including the steps
2 of:
3 securely charging a fee; and
4 conditioning said charging step at least in part on at least one
5 class defined, assigned, selected, and/or matched based at least in part
6 on rights management information.

1 33. A method for securely exchanging digital information
2 including the step of at least in part defining, assigning, selecting,
3 and/or matching at least one class based at least in part on rights
4 management information.

34. A method for performing at least one rights operating system based transaction including the step of defining, assigning,

3 selecting, and/or matching at least one class based at least in part on
4 rights management information.

1 35. A method for performing at least one protected
2 processing environment operation including the step of defining,
3 assigning, selecting, and/or matching at least one class based at least
4 in part on rights management information.

1 36. A method of pushing information including the steps of
2 classifying recipients and/or information to be sent to said recipients
3 based at least in part on rights management information, and selecting
4 said information to distribute to said recipients based at least in part
5 on said classifying.

1 37. A method of pushing information including the steps of
2 classifying recipients and/or information to be sent to said recipients
3 based at least in part on rights management information, and
4 matching at least a portion of said information with at least one class
5 of said recipients based at least in part on said classifying.

1 38. A method of pushing information as in claim 37 further
2 including the step of creating a classification scheme and/or hierarchy
3 using at least some rights information.

1 39. A method of pushing information as in claim 37 further
2 including the step of assigning at least some information and/or at
3 least one recipient to a class or category, said assignment based at
4 least in part on rights management information.

1 40. A subject switch for matching subscribers and/or
2 recipients desiring information in one or more classes with one or
3 more sources of information, wherein the subject switch matches at
4 least one subscriber and/or participant with at least one information
5 source on a mapping based at least in part on rights management
6 information.

1 41. A subject switch as in claim 40 wherein said information
2 source:

3 selects at least some information, said selection based on at
4 least one class, and wherein said assignment of said at least some
5 information to said at least one class is based at least in part on rights
6 management information; and

7 sends at least some said selected information to said subscriber
8 in accordance with said subscriber's subscribing to said class of
9 information.

1 42. A subject switch as in claim 40 wherein at least one of
2 said subject switch, said subscriber and/or participant and said
3 information source includes at least one computer providing a
4 protected processing environment.

1 43. A subject switch as in claim 40 wherein at least one
2 subscriber and/or participant uses rights management information at
3 least in part to persistently subscribe to at least some information
4 provided by at least one information source.

1 44. A subject switch as in claim 40 wherein the subject
2 switch includes means for using at least one class definition for said
3 mapping.

1 45. A subject switch as in claim 40 wherein the subject
2 switch includes means for responding to a subscriber and/or
3 participant request by providing information indicating information
4 sources in at least one specified or desired class.

1 46. A subject switch as in claim 40 further including a
2 messaging service for use by at least two of said subject switch, said
3 subscriber and/or participant and said information source and/or
4 participant to communicate electronically.

1 47. A subject switch as in claim 46 wherein said electronic
2 communications uses at least one secure container.

1 48. A subject switch as in claim 40 wherein at least one of
2 said subject switch, subscriber, or information source uses at least one
3 control set associated with at least some information received by at
4 least one subscriber.

1 49. A digital narrowcasting arrangement comprising:
2 a computer; and
3 at least one classifying element used to select content to
4 narrowcast to recipients based at least in part on rights management
5 information.

1 50. A digital narrowcasting arrangement as in claim 49
2 wherein the classifying element classifies at least one of (a) a
3 recipient, and (b) content, based at least in part on rights management
4 information.

1 51. A digital narrowcasting arrangement as in claim 49
2 wherein said classifying element defines at least one class using at
3 least some rights management information.

1 52. A digital narrowcasting arrangement as in claim 49
2 wherein the classifying element assigns at least some content to at
3 least one class, said assignment based on at least some rights
4 management information.

1 53. A digital narrowcasting arrangement as in claim 49
2 wherein the classifying element defines at least one class based at
3 least in part on content selections previously made by the recipients
4 and/or profiles generated based at least in part on recipient input.

1 54. A digital narrowcasting arrangement as in claim 49
2 wherein the classifying element sends a content request including
3 classification data and destination information to at least one
4 provider.

1 55. An information distribution system including: a
2 computer network; and a selection arrangement that selects
3 information for use by individual recipients using classes based at
4 least in part on rights management information.

1 56. An information distribution system as in claim 55
2 wherein the system further includes a classifying element that
3 determines at least one class of content and/or service of interest to at
4 least one recipient.

1 57. An information distribution system as in claim 56
2 wherein said classifying element defines at least one class using at
3 least some rights management information.

1 58. An information distribution system as in claim 56
2 wherein said classifying element assigns at least some content to at
3 least one class, said assignment based on at least some rights
4 management information.

1 59. An information distribution system as in claim 55
2 wherein the system includes means for allowing the user to choose to
3 receive the selected information.

1 60. An enterprise information system including a computer
2 system for classifying employees, said system including at least one
3 rights management component that distributes information to the
4 employees based at least in part on employee classification.

1 61. An enterprise information system as in claim 60 wherein
2 the computer matches the information to employees based at least in
3 part on the employee classification.

1 62. An enterprise information system as in claim 60 wherein
2 the employee classification is used to gather information for
3 employees without revealing substantial information concerning
4 individual employees.

1 63. A method for conducting a chain of handling and/or
2 control including the steps of allowing plural parties to contribute
3 rules and/or consequences, and performing at least one classification
4 based at least in part on said rules and/or consequences.

1 64. A method as in claim 63 wherein at least some of said
2 contributed rules and/or consequences are class based.

1 65. A method as in claim 63 wherein at least one of said
2 parties modifies at least one of said rules and/or consequences based
3 at least in part on class.

1 66. A method as in claim 63 including the step of generating
2 class assignments based at least in part on said rules and/or
3 consequences, and sending said class assignments to at least one
4 clearinghouse.

1 67. A method as in claim 63 including the step of classifying
2 said rules and/or consequences to provide at least one class, and
3 fulfilling at least one request by selecting based on said class.

1 68. A directory services system for classifying confidential
2 information, the system including:

3 a communications component that receives directory requests;
4 and

5 a response component that uses said classification to respond to
6 directory requests while preserving confidentiality of said
7 confidential information.

1 69. A directory services system as in claim 68 wherein said
2 response component uses at least one classification process to classify
3 items in a directory, and uses results of the classification process, at
4 least in part, to respond to directory requests.

1 70. A directory services system as in claim 68 wherein said
2 response component sends information to destinations revealed by the
3 results of the classification process without revealing at least some
4 information concerning said destinations to the information source.

1 71. A microsegmented merchandising technique including
2 the steps of performing classification based at least in part on usage
3 data and/or lifestyle profiles, and distributing offers for products
4 and/or services based at least in part on the classification.

1 72. A microsegmented merchandising technique as in claim
2 71 wherein the performing step includes defining at least one class
3 hierarchy based at least in part on rights management information.

1 73. A microsegmented merchandising technique as in claim
2 71 further including the step of combining plural offers for different
3 products and/or services based at least in part on said classification.

1 74. A trading network including:
2 a communications element for communicating digital signals;
3 and
4 means for matching value chain participants through a
5 classification based at least in part on rights management
6 information.

1 75. A trading network as in claim 74 further including means
2 for defining at least one class hierarchy based at least in part on rights
3 management information.

1 76. A trading network as in claim 74 further including means
2 for determining class membership based at least in part on action
3 and/or information provided by at least one value chain participant.

1 77. A trading network as in claim 74 wherein said matching
2 means includes means for at least in part performing at least one
3 electronic negotiation.

1 78. A securities trading method including the step of
2 performing a classification process at least in part using at least one
3 rights management element, and using the classification process to
4 select securities for trade.

1 79. A securities trading method as in claim 78 wherein said
2 classification process includes defining at least one class hierarchy
3 based at least in part on rights management information.

1 80. A currency/debt trading system including:
2 a currency or debt trading computer; and
3 an arrangement coupled to said computer that performs at least
4 one classification process based at least in part on rights management
5 information.

1 81. A currency/debt trading system as in claim 80 wherein
2 said arrangement includes means for defining at least one class
3 hierarchy based at least in part on rights management information.

1 82. A currency/debt trading system as in claim 80 wherein
2 the arrangement uses classification to maximize return or minimize
3 loss.

1 83. A financial institution selection system including a
2 computer that classifies financial institutions based at least in part on
3 rights management information.

1 84. A software distribution method including the steps of
2 generating class information based at least in part on rights
3 management information, and selecting software to be distributed
4 and/or recipients who are to receive distributed software based at least
5 in part on class information.

1 85. A software distribution method as in claim 84 wherein
2 said generating step includes defining a class hierarchy using at least
3 some rights management information.

1 86. A software distribution method as in claim 84 wherein
2 the selecting step includes selecting software to be distributed by
3 classifying the software based at least in part on rights management
4 information associated with the software.

1 87. A software distribution method as in claim 80 wherein
2 the selecting step includes selecting recipients to receive software
3 based at least in part on usage information provided by a rights
4 management process.

1 88. A classification technique including the step of
2 authenticating class membership based at least in part on digital
3 credentials and/or certificates.

1 89. A classification technique as in claim 88 wherein said
2 digital credentials are digital certificates.

1 90. A classification technique as in claim 88 wherein said
2 digital credentials are digital membership cards.

1 91. A classification technique as in claim 88 further
2 including the step of deciding class membership based at least in part
3 on rights management information.

1 92. A classification technique as in claim 88 further
2 including the step of classifying at least one of users, nodes, devices,
3 networks, servers, clients and services based at least in part on rights
4 management information.

1 93. A classification technique as in claim 88 further
2 including the step of conditioning at least one rights management
3 process at least in part on authenticated class membership.

1 94. A computer system including:
2 a first arrangement that generates class-based controls to
3 participants based at least in part on class and/or class-based
4 assignments; and
5 a second arrangement that allows participants to interact with
6 information and/or one another at least in part using said class-based
7 controls.

1 95. A computer system as in claim 94 further including
2 means for using said class-based controls to limit participants' access
3 to information and/or services based on participants' classes.

1 96. A health care computer system including an arrangement
2 for issuing health care workers, administrators and insurers class-
3 based digital credentials and/or certificates, wherein the digital
4 information sent to said health care workers and administrators
5 includes class-based controls that condition use and/or access to
6 information based at least in part on said class-based digital
7 credentials and/or certificates.

1 97. A health care computer system as in claim 96 further
2 including means for allowing said health care workers, administrators
3 and insurers sharing a common object subject to class-based controls

4 to have access to different portions of the object based at least in part
5 on said class-based controls.

1 98. A work process automation system including a matching
2 and/or classification computer that matches tasks to resources based
3 at least in part on assigning classifying the tasks and/or the resources
4 to at least one class.

1 99. A work process automation system as in claim 98
2 wherein said matching and/or classification computer includes means
3 for defining at least one class hierarchy based at least in part on rights
4 management information.

1 100. A work process automation system as in claim 98
2 wherein said matching and/or classification computer includes means
3 for matching based at least in part on rights management information.

1 101. An automatic governmental and/or societal rights
2 supporting system including a matching and/or classification
3 computing element that assigns and/or classifies entities to at least
4 one class based at least in part on rights management information.

1 102. An automatic governmental and/or societal rights
2 supporting system as in claim 101 wherein the matching and/or
3 classification computing element includes means for defining a class
4 hierarchy based at least in part on rights management information.

1 103. An automatic governmental and/or societal rights
2 supporting system as in claim 101 wherein the matching and/or
3 classification computing element includes means for classifying
4 entities based on at least one of the following:

5 tax status;
6 right to receive certain information;
7 right to engage in certain transactions; and
8 jurisdiction.

1 104. An automatic taxation authority computer including
2 means for issuing tax class control sets based at least in part on tax-
3 based class definitions, and means for using said tax control sets at
4 least in part to collect and/or enforce taxation.

1 105. A method for adaptively presenting information
2 differently to different participants, including associating said
3 participants with classes, and controlling presentation based at least in
4 part on class-based control sets included within the information.

1 106. A method as in claim 105 further including using said
2 class-based control sets to match participants with different portions
3 of said information.

1 107. A method as in claim 105 further including using said
2 class-based control sets to change the form in which information is
3 presented based at least in part on said classes.

1 108. A method as in claim 105 further including the step of
2 operating said class-based control sets based at least in part on
3 metadata associated with different portions of said information.

1 109. A method as in claim 105 further including selecting
2 said class-based control sets between different images for
3 presentation based at least in part on one or more classes associated
4 with a participant.

1 110. A method as in claim 105 further including using said
2 class-based control sets to emphasize certain portions of said
3 information over other portions in said presentation based at least in
4 part on one or more classes associated with a participant.

1 111. A method as in claim 105 further including using at
2 least one computer having a protected processing environment.

1 112. A method for adaptively presenting information
2 differently to different participants including:
3 classifying the different participants based on capability; and
4 using class-based control sets associated with said information
5 to change the difficulty of the presentation based at least in part on
6 said classification.

1 113. A method as in claim 112 wherein the different
2 recipients are classified based on grade level.

1 114. A method as in claim 112 including the step of
2 changing the vocabulary and/or syntactical complexity of the
3 presentation based at least in part on said classification.

1 115. A method as in claim 112 further including the step of
2 using said class-based control sets to ensure that in at least some
3 cases, recipients in different classes pay different levels of
4 compensation for said presentation.

1 116. A method for adaptively presenting information
2 differently to different participants including:
3 classifying different participants based on capability, and
4 using class-based control sets associated with said information
5 to change the language of the presentation based at least in part on
6 said classification.

1 117. An information searching mechanism including a
2 matching computer element that classifies information based at least
3 in part on rights management information, said computing element
4 including means responsive to user requests to search for information
5 based at least in part on said classification.

1 118. An information searching mechanism as in claim 117
2 wherein said matching computer element further includes means for
3 assigning information to classes based at least in part on rights
4 management information.

1 119. An information searching mechanism as in claim 117
2 wherein said matching computer element includes means for scoring
3 information based at least in part on user indicated parameters.

1 120. An information searching mechanism as in claim 117
2 wherein said matching computer element includes means for
3 responding to at least some user requests by providing Universal
4 Resource Locator designations of where information can be found.

1 121. An information handling method including the step of
2 using class-based controls to control support extraction and/or
3 aggregation of information.

1 122. An information handling method as in claim 121 further
2 including using a computing element to extract information from
3 plural objects based at least in part on class-based criteria.

1 123. An information handling method as in claim 121 further
2 including using a computing element to aggregate information based
3 at least in part on class-based criteria.

1 124. An information handling method as in claim 121 further
2 including using said class-based controls to represent nested or multi-
3 level classifications.

1 125. An information classification method including the step
2 of generating at least one class hierarchy from other plural
3 classification hierarchies based at least in part on rights management

4 information and/or class-based rights management information based
5 at least in part on classification metadata.

1 126. An information classification method as in claim 125
2 further including basing said other plural classification hierarchies at
3 least in part on object metadata.

1 127. An information classification method as in claim 125
2 further including specifying said classification object metadata
3 specified classifications based on at least one of location, name,
4 prices, permissions, ISSN, title, author, publisher and/or date.

1 128. An information classification method as in claim 125
2 further including generating said class-based rights management
3 information by classifying classes.

1 129. An electronic gambling system including a computer
2 that matches gamblers with plural gambling providers based at least
3 in part through classifying the gambling providers using rights
4 management information.

1 130. An electronic gambling system as in claim 129 wherein
2 the computer includes means for classifying the gamblers based at
3 least in part on rights management information.

1 131. An electronic gambling system as in claim 129 wherein
2 the computer includes at least one protected processing environment.

1 132. An electronic gambling system as in claim 129 wherein
2 the computer uses at least one control set to classify, select and/or
3 match at least one of said gambling providers, and/or gamblers.

1 133. An electronic ticketing system including a computer
2 that matches recipients with tickets to events through classifying said
3 recipients, said system including a computer that matches tickets
4 and/or said events based at least in part on rights management
5 information.

1 134. An electronic ticketing system as in claim 133 wherein
2 a recipient provides a request containing event and rights
3 management criteria, and the computer matches the recipient with a
4 provider based at least in part on said classifying process.

1 135. An electronic ticketing system as in claim 133 wherein
2 the rights management information includes method of payment
3 information.

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